UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,667	06/27/2003	Boris Chidlovskii	D/A2470	8045

25453 7590 03/22/2007

PATENT DOCUMENTATION CENTER
XEROX CORPORATION
100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR
ROCHESTER, NY 14644

EXAMINER	
DEBROW, JAMES J	
ART UNIT	**PAPER NUMBER**
2176	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/607,667	CHIDLOVSKII ET AL.	
	Examiner	Art Unit	
	James J. Debrow	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 Jan 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: RCE filed on 15 Jan. 2007.

2. Claims 1-20 are pending in the case. Claims 1, and 11 are independent claims.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 Jan. 2007 has been entered.

Applicant's Response

4. In Applicant's response dated 15 Jan. 2007, Applicant amended Claims 1, and 11; and argued against all objections and rejection previously set forth in previous Office Action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-8 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (Patent No.: 6,014,680, Filed Aug. 29, 1996) (hereinafter 'Sato') in view of Howard et al. (Patent No.: 6,513,006 B2, Filed Jun. 6, 2001) (hereinafter 'Howard').

In regards to independent claim 1, Sato discloses *a method for converting a generic document, wherein a generic document comprises a document in a particular format type, into a structured document, wherein a structured document includes a plurality of content elements wrapped in pairs of hierarchically nested tags, comprising:*

parsing the generic document of the particular format type containing content into a plurality of content elements (col 1, lines 15-25; col. 3, lines 59-67; Sato discloses generating a structured document from a non-structured document.).

Sato does not expressly disclose *for a selected content element, suggesting an optimal tag according to a tag suggestion procedure;*

wherein the tag suggestion procedure comprises:

providing sample data in the form of structured sample documents;

analyzing patterns in the sample data to derive a set of tag suggestions and tag suggestion rules;

deriving a set of candidate tags from the set of tag suggestions for the selected content element in accordance with the tag suggestion rules; and

evaluating the set of candidate tags according to tag suggestion criteria to determine an optimal tag for the selected content element.

However, Howard teaches *for a selected content element, suggesting an optimal tag according to a tag suggestion procedure* (col. 10, lines 7-25; Howard teaching selecting an optimal tag.);

wherein the tag suggestion procedure comprises:

providing sample data in the form of structured sample documents (col. 9, lines 18-30; Howard teaches each tag carries information about what set of words the input sentence are covered by the tag.);

analyzing patterns in the sample data to derive a set of tag suggestions and tag suggestion rules (col. 9, lines 18-60; Howard teaches each tag carries information about what set of words the input sentence are covered by the tag. Tag context information is utilized in the scoring heuristic for adjusting weight associated with a heuristic scoring factor. Howard further teaches the parser generates information that need to be analyzed and combined together to form

the final output of the local parser. The combining phase determines which tag form more meaningful interpretation of the input.);

deriving a set of candidate tags from the set of tag suggestions for the selected content element in accordance with the tag suggestion rules (col. 9, lines 13-60; Howard teaches deriving a set of candidate tags.) *and*

evaluating the set of candidate tags according to tag suggestion criteria to determine an optimal tag for the selected content element (col. 9, line 60 – col. 10, line 25; Howard teaches selecting N-Best candidate based upon a score associated with the tag).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 2, Sato does not expressly disclose *the method of claim 1, wherein the tag suggestion criteria comprises satisfying a similarity function.*

However, Howard teaches *the tag suggestion criteria comprises satisfying a similarity function* (col. 10, lines 7-14; Howard teaches generating the topic-tags, each representing information found in a corresponding parse-tree, thus *satisfying a similarity function.*).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 3, Sato discloses generating a structured document from a non-structured document (col 1, lines 15-25; col. 3, lines 59-67).

Sato does not expressly disclose *the method of claim 1, wherein the set of tag suggestions are generated during creation of the structured document*

However Howard teaches *generating the set of tag suggestions* (col. 9, line 13 – col. 10, line 25).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 4, Sato discloses generating a structured document from a non-structured document (col 1, lines 15-25; col. 3, lines 59-67).

Sato does not expressly disclose *the method of claim 1, wherein the set of tag suggestions are generated prior to creation of the structured document.*

However Howard teaches *generating the set of tag suggestions* (col. 9, line 13 – col. 10, line 25; Howard teaches tag generation is accomplished via tag and score generators.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 5, Sato discloses *the method of claim 1, wherein the structured sample document comprises an XML document having a DTD associated with it* (col. 8, lines 7-15; Sato discloses an intern SGML document which generates a SGML document matching DTD.).

In regards to dependent claim 6, Sato does not expressly disclose *the method of claim 1, wherein the set of tag suggestions includes tree patterns of tags.*

However Howard teaches *the method of claim 1, wherein the set of tag suggestions includes tree patterns of tags* (col. 10, lines 7- 18; Howard teaches the topic-tags representing information found in the corresponding parse-tree.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags

containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 7, Sato does not expressly disclose *the method of claim 1, wherein the optimal tag maximizes a similarity function with patterns found in the sample data.*

However Howard teaches *wherein the optimal tag maximizes a similarity function with patterns found in the sample data*(col. 10, lines 7-14; Howard teaches generating the topic-tags, each representing information found in a corresponding parse-tree, thus *satisfying a similarity function.*).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 8, Sato does not expressly disclose *the method of claim 6, wherein the tag suggestion criteria comprises balancing size of tree patterns of tags and frequency of occurrence of tree patterns of tags in the sample data.*

However Howard teaches *wherein the tag suggestion criteria comprises balancing size of tree patterns of tags and frequency of occurrence of tree patterns of*

tags in the sample data (col. 10, lines 7-14; Howard teaches generating the topic-tags, each representing information found in a corresponding parse-tree.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to independent claim 11, Sato disclose *a method for authoring of a structured document, wherein a structured document comprises a plurality of content elements wrapped in pairs of tags, comprising:*

generating content elements wrapped in pairs of tags (col. 12, line 15-col. 13, line 34. Sata discloses the output interim SGML document has tag information corresponding to start tag information and end tag information. Thus, *a structured document comprises a plurality of content elements wrapped in pairs of tags.*).

Sato does not expressly disclose *for a selected tag, suggesting an optimal content fragment according to a content suggestion procedure,*

wherein the content suggestion procedure comprises:

providing a plurality of sample structured documents;

analyzing the sample structured documents for content fragment;

deriving a set of content fragments from the sample structured document associated with the selected tag;

evaluating the set of content fragments according to a content fragment suggestion criteria to determine an optimal content fragment suggestion for the tag, wherein the optimal content fragment suggestion is the most probable content fragment for the selected tag.

However, Howard teaches *for a selected tag, suggesting an optimal content fragment according to a content suggestion procedure* (col. 10, lines 7-25; Howard teaching selecting an optimal tag.);

wherein the content suggestion procedure comprises:

providing a plurality of sample structured documents (col. 9, lines 18-30; Howard teaches each tag carries information about what set of words the input sentence are covered by the tag.);

analyzing the sample structured documents for content fragment (col. 9, lines 18-60; Howard teaches each tag carries information about what set of words the input sentence are covered by the tag. Tag context information is utilized in the scoring heuristic for adjusting weight associated with a heuristic scoring factor. Howard further teaches the parser generates information that need to be analyzed and combined together to form the final output of the local parser. The combining phase determines which tag form more meaningful interpretation of the input.);

deriving a set of content fragments from the sample structured document associated with the selected tag (col. 9, lines 13-60; Howard teaches deriving a

set of candidate tags. It would have been obvious to a person of ordinary skill in the art to apply Howards' teaching to content fragment. Thus, Howard teachings suggests deriving a set of content fragments.);

evaluating the set of content fragments according to a content fragment suggestion criteria to determine an optimal content fragment suggestion for the tag, wherein the optimal content fragment suggestion is the most probable content fragment for the selected tag (col. 9, line 60 – col. 10, line 25; Howard teaches selecting N-Best candidate based upon a score associated with the tag. It would have been obvious to a person of ordinary skill in the art to apply Howards' teaching to content fragment. Thus, Howard teachings suggests evaluating the set of content fragments.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 12, Sato does not expressly disclose *the method of claim 11, further comprising assigning a score to each content fragment in the set of content fragments, wherein the score is a ratio of number of occurrences of the content fragment under the selected tag and number of occurrences of the selected tag in the sample structured document.*

However, Howard teaches *assigning a score to each content fragment in the set of content fragments* (col 9, line 61 – col. 10, line19; Howard teaches generating a score for the cover-sets of the tags. It would have been obvious to a person of ordinary skill in the art to apply Howards' teaching to content fragment. Thus, Howard teachings assigning a score to each content fragments).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 13, Sato does not expressly disclose *the method of claim 12, wherein the optimal content fragment suggestion is the content fragment with the highest score.*

However Howard teaches *wherein the optimal content fragment suggestion is the content fragment with the highest score* (col 9, line 61 – col. 10, line19; Howard teaches generating a score for the cover-sets of the tags.Thus, Howard teachings suggests the concept of wherein the optimal content fragment suggestion is the content fragment with the highest score.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags

containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 14, Sata discloses *the method of claim 12, further comprising assigning a context to each content fragment in the set of content fragments, wherein context comprises the structural context of the tag surrounding the content fragment* (col. 12, line 15-col. 13, line 34. Sata discloses the output interim SGML document has tag information corresponding to start tag information and end tag information.).

In regards to dependent claim 15, Sato does not expressly disclose *the method of claim 12, wherein the optimal content fragment suggestion is the content fragment with the highest score greater than a threshold value.*

However Howard teaches *wherein the optimal content fragment suggestion is the content fragment with the highest score greater than a threshold value* (col 9, line 61 – col. 10, line19; Howard teaches generating a score for the cover-sets of the tags. Howard further teaches the N-best processor selects the N-best candidate based upon the score associated with the tag. Thus, Howard teachings suggests the concept of the optimal content fragment suggestion is the content fragment with the highest score greater than a threshold value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language

parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 16, Sato does not expressly disclose *the method of claim 14, wherein each content fragment is referenced by a partial path from the sample structured document root and the context comprises the partial path of the content fragment in the sample structured document.*

However Howard teaches *wherein each content fragment is referenced by a partial path from the sample structured document root and the context comprises the partial path of the content fragment in the sample structured document* (col. 10, lines 7-14; Howard teaches generating the topic-tags, each representing information found in a corresponding parse-tree. It has been established and is known to anyone of ordinary skill in the art that a tree structure consisting of *content fragment is referenced by a partial path from the structured document root*).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 17, Sato does not expressly disclose *the method of claim 11, further comprising:*

selecting a small linguistic unit within each content fragment in the set of content fragments; and

assigning a score to the small linguistic unit, wherein the score is a ratio of number of occurrences of the linguistic unit under the selected tag and number of occurrences of the selected tag in the sample structured document.

However Howard teaches *selecting a small linguistic unit within each content fragment in the set of content fragments* (col. 9, lines 55-60; Howard teaches generated tag corresponds to a set of words in the input word string called the tag's cover-set. Using the broadest interpretation, the Examiner concludes the small linguistic unit is equivalent to the tag's cover-set.).

assigning a score to the small linguistic unit, wherein the score is a ratio of number of occurrences of the linguistic unit under the selected tag and number of occurrences of the selected tag in the sample structured document (col 9, line 61 – col. 10, line19; Howard teaches generating a score for the cover-sets of the tags. It would have been obvious to a person of ordinary skill in the art to apply Howards' teaching to assigning a score to the small linguistic unit.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags

containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 18, Sato does not expressly disclose *the method of claim 17, wherein the small linguistic unit is a word, a phrase or a sentence.*

However Howard teaches *the small linguistic unit is a word, a phrase or a sentence* (col. 9, lines 55-60; Howard teaches generated tag corresponds to a set of words in the input word string called the tag's cover-set. Using the broadest interpretation, the Examiner concludes the small linguistic unit is equivalent to the tag's cover-set.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 19, Sato does not expressly disclose *the method of claim 14, wherein the context of each content fragment in the set of content fragments comprises the structural tree around the tag surrounding the content fragment.*

However Howard teaches *the context of each content fragment in the set of content fragments comprises the structural tree around the tag surrounding the content*

fragment (col. 10, lines 7-14; Howard teaches generating the topic-tags, each representing information found in a corresponding parse-tree. It would have been obvious to a person of ordinary skill in the art to apply Howards' teaching to content fragment.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Sato with Howard for the benefit of a language parser translating text input to a new representation by generating well-structured tags containing topic information and data, and associating each tag with the segment of the input text containing the tagged information (col. 8, lines 2-6).

In regards to dependent claim 20, Sato discloses *the method of claim 1, wherein content comprises text* (col 1, lines 15-25; col. 3, lines 59-67; Sato discloses generating a structured document from a non-structured document.).

Note

7. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

8. **Claims 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato and Howard in view of Kotsakis ("Structured Information Retrieval In XML Documents"; Pub Date: 2002).**

In regards to dependent claims 9, and 10, Sato in view of Howard does not disclose expressly *a set of tree patterns of tags "ti E T" , and a set of C of candidates is a set of all patterns in T.*

However, Kotsakis discloses a system of retrieving structured information in XML documents. Kotsakis discloses a XML document represented in the form of a summary tree *(T)* (Fig. 2A & 2B). The tree is loaded into an index structure where the content data is separated from the path data. The path data is a hierarchy of *tags*, which records every single path in the collection (page 664, right column). Kotsakis uses an algorithm to insert a summary tree in the index structure by storing the structure part of the summary tree into the path index (tags), and the literal part of the element content into a inverted file (page 665, left column). Kotsakis also discloses an UpdateInvertedFile (I, t, c) method that stores the literal content of the node *t* into the inverted file *"I"*. Content(t) is the literal content of the tag "t" in the summary tree. "c" is the node (tag) in the path index to which all terms in content(t) will be linked (page 665, right column). Kotsakis further discloses a ranking scheme that is divided into two components. The first one defines the term weight in terms if its distribution and the second one in terms of it's structural position. (Ranking, page 666). The path index contains normalized tags. This feature may facilitate *similarity* search *(similarity function)* by content and structure (Index 2 of Conclusion; page 666).

The current invent is similar to Kotsakis in that Kotsakis teaches the concepts used in the current invention. Kotsakis teaches the concept of separating the content data *(set of C of candidates)* from the path data *(tree patterns of tags)*. Kotsakis also teaches the concept of ranking, which would have been obvious to a person of ordinary skill in the art when testing for similarity between the set of optimal tag candidates and the tree patterns of tags.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Sato and Howard with Kotsakis for the benefit of optimizing the process of suggesting the optimal tag according to a tag suggestion procedure, to obtain the invention as specified in the claims.

Note

9. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

10. Applicant's arguments, see Remarks, filed 15 Jan 2007, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Sato in view of Howard.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Debrow whose telephone number is 571-272-5768. The examiner can normally be reached on 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAMES DEBROW
EXAMINER
ART UNIT 2176

Doug Hutton
Primary Examiner
Technology Center 2100